

Organic No-Till Farming



In recent years we have learned that tilling kills beneficial soil life, burns up organic matter, and releases carbon dioxide into the atmosphere. If the ground could instead be prepared for planting without tilling, time and energy could be saved, soil organic matter increased, carbon sequestered, and dependence on machinery reduced.

Much of the interest in no-till farming comes from a desire to avoid the negative effects of tillage. So, before talking about how to do no-till, we should talk about why people want to go no-till in the first place. Negatives associated with tillage include soil compaction, stirring up weed seeds, burning up organic matter, and taking a lot of time and equipment. Positives of good no-till systems include carbon sequestration, labor savings, increasing soil life and diversity (including the important fungal component of the soil), and increasing the water-holding capacity of the soil.

While working on a no-till research farm 15 years ago, Andrew Mefferd realized that the method he had learned didn't scale down to the size of his farm. When he discovered that growers had developed their own smaller-scale no-till systems, he interviewed 19 of them for his book *The Organic No-Till Farming Revolution*. He will talk about the important differences between conventional (herbicide-dependent) no-till and organic, and outline the broad methods for doing organic no-till: mulch grown in place (that is, the roller-crimper method) vs. mulch applied to the soil (compost mulch, deep straw mulch, and cardboard mulch, solarization, occultation).

| Time | Topics |
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| 9:00 | Welcome & Introductions |
| 9:15 | The advantages of no-till farming and the disadvantages of tillage |
| 10:30 | Break |
| 10:45 | Non-biodegradable mulches that are removed for production Clear plastic (solarization) Opaque plastic—landscape fabric, silage covers etc. (occultation) |
| 12:30 | Lunch |

| Time | Topics |
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| 1:45 | Mulch grown in place: the roller/crimper method Cover crop establishment, timing, and killing without herbicides Planting or transplanting through a mulch killed in place Ways to extend the weed-free period from a mulch killed in place |
| 3:15 | Break |
| 3:30 | Mulches that are left in place during production Deep straw mulch Plastic mulches |
| 4:45 | Wrap-up and Evaluation |
| 5:00 | Adjourn to Reception in Conservatory |

Find more information about Organic Intensives, scholarships, and how to register at moffa.net/oi-2020.html.